



DRAFT

ENVIRONMENTAL ASSESSMENT

PHANTOM BULL ELK RANCH EXPANSION

June 10, 1999

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SUMMARY

ENVIRONMENTAL ASSESSMENT PHANTOM BULL ELK RANCH EXPANSION

INTRODUCTION

This 9 page summary provides an abbreviated description of the Draft Environmental Assessment (EA) for the proposed expansion of the Phantom Bull Elk Ranch game farm. Detailed descriptions of the Proposed Action, the affected environment, potential consequences of the Proposed Action and recommended mitigation measures are presented in the Draft EA which begins on page 10 of this document.

The Montana Department of Fish, Wildlife and Parks (FWP) is required to perform an environmental analysis in accordance with the Montana Environmental Policy Act (MEPA) for each proposal for projects, programs, legislation, and other major actions of state government significantly affecting the quality of the human environment (Administrative Rules of Montana [ARM] 12.2.430). FWP uses environmental assessments (EAs) in the game farm licensing process to identify and evaluate environmental impacts of a proposed game farm. EAs also determine whether the impacts will be significant and whether, as a consequence, FWP will perform a more detailed environmental impact statement (EIS).

When preparing an EA, FWP reviews environmental impacts of the proposed action, impacts of the no action alternative, and impacts of other alternative actions which include recommended and/or mandatory measures to mitigate the project's impacts. A mitigated EA includes alternatives with enforceable requirements (stipulations) which reduce impacts of the proposed action to a level below significance. The EA may also recommend a preferred alternative for the FWP decision maker.

Based upon its review of the Phantom Bull Elk Ranch game farm expansion, FWP has prepared a mitigated EA.

OBJECTIVES

This EA has been prepared to serve the following purposes in accordance with FWP MEPA rules ARM 12.2.430:

- to ensure that FWP use natural and social sciences in planning and decision-making;
- to be used in conjunction with other agency planning and decision-making procedures to make a determination regarding the Proposed Action;
- to assist in the evaluation of reasonable alternatives and the development of conditions, stipulations, and modifications to the Proposed Action;
- to determine the need to prepare an Environmental Impact Statement (EIS) through an initial evaluation and determination of the significance of impacts associated with the Proposed Action;
- to ensure the fullest appropriate opportunity for public review and comment on the Proposed Action; and
- to examine and document effects of the Proposed Action on quality of the human environment.

PUBLIC PARTICIPATION

Public involvement in the Environmental Assessment (EA) process includes the steps necessary to identify and address public concerns. The Draft EA will be available for public review and comment from **June 10, 1999** until 5pm **June 30, 1999** from the State Bulletin Board System, the Montana Fish, Wildlife and Parks at Region 3, 1400 South 19th, Bozeman, MT 59718 (406-994-4042), or the Helena Area Resource Office, 930 Custer Ave W, Helena, MT 59620 (406-444-4720). Address all comments regarding this EA to the following address:

PBER Expansion
Montana Fish, Wildlife & Parks
P.O. Box 998
Townsend, Montana 59644
(406) 266-3367

PROPOSED ACTION AND ALTERNATIVES

PROPOSED ACTION

The Montana Department of Fish, Wildlife and Parks (FWP) received an application in May 1999 to expand the Phantom Bull Elk Ranch game farm. The game farm expansion is located approximately 20 miles northeast of Townsend, Montana (Figure 1). The Proposed Action provides for a 20-acre expansion in addition to an existing 600-acre elk game farm by adding one additional area (Figure 2).

Expansion Area

Proposed expansion would be a 20-acre area located west of and contiguous to the existing game farm. This area would share a common fence line with the 600-acre existing enclosure.

Fence construction would be in accordance with requirements of FWP under ARM 12.6.1503A unless a waiver is granted by FWP to construct a game-proof fence of an alternative design. Trees in the expansion areas would be cleared up to 20 feet on either side of the exterior fence and there would be some thinning of tree density within the proposed enclosure.

The total number of animals that would be licensed for the entire (existing plus proposed expansion area) Phantom Bull Elk Ranch Game Farm would be the same (300 elk) as what the farm is currently licensed for. The Proposed Action would allow for a portion of these elk to periodically use the expansion area. The applicant would continue to breed, sell and dispose of elk in accordance with Montana game farm and disease control requirements stipulated in the Administrative Rules of Montana (ARM) Title 87, Chapter 4, Part 4 and ARM Title 81, Chapter 2, Part 7.

ALTERNATIVES

One alternative (the No Action Alternative) is evaluated in this Environmental Assessment (EA). Under the No Action Alternative, FWP would not issue a license for expansion of the Phantom Bull Elk Ranch game farm as proposed. Therefore, no game farm animals would be placed on the proposed expansion area. Implementation of the No Action Alternative would not preclude other activities allowed under local, state and federal laws to take place in the expansion area.

MITIGATION MEASURES

Mitigation measures described in this EA are designed to reduce or eliminate impacts that would occur under the Proposed Action. Mitigation measures designed to reduce or eliminate minor impacts will be recommended to the applicant as management practices.



Figure 1. Phantom Bull Elk Ranch location.



Figure 2. Phantom Bull Elk Ranch game farm and expansion.

PURPOSE AND NEED OF THE PROPOSED ACTION

The purpose of the Proposed Action is to provide additional grazing for a portion of the animals on the existing game farm. The intent, according to the applicant, is not to increase the number of game farm animals.

ROLE OF FWP AND THE DEPARTMENT OF LIVESTOCK (DoL)

FWP is the lead agency in preparing this EA for the proposed project. This document is written in accordance with the Montana Environmental Quality Council (EQC) Montana Environmental Policy Act (MEPA) Handbook and FWP statutory requirements for preparing an EA under Title 75, Chapter 1, Part 2 Montana Code Annotated.

FWP shares game farm regulatory responsibilities for new and expanding game farms with the DoL. The DoL is responsible for regulating the health, transportation and identification of game farm animals. During the application process, all applications are submitted to the DoL for approval and inspection of the quarantine facility. No licenses are issued without such approval and inspection.

AFFECTED ENVIRONMENT

Three primary vegetation types are present in the expansion areas: meadow, Douglas-fir forest and a small stand of Aspen. The meadow type is comprised of native species and makes up approximately 15 of the total 20 acres.

The proposed expansion area is used spring, summer and fall by a few mule deer and wild elk (**Figure 3**). The game farm and the expansion area are at a higher elevation than winter ranges used by these 2 species. A few moose, black bear and mountain lion also are known to occur in this vicinity. The expansion area has also been utilized by domestic livestock.

There are no perennial streams or wetlands in the proposed expansion area.

ENVIRONMENTAL CONSEQUENCES

Only resources potentially affected by the Proposed Action are summarized in this section.

WILDLIFE RESOURCES

Although this area is not considered critical habitat for any wildlife species, the Proposed Action would exclude wild deer and elk from 20 acres of suitable habitat. The loss of 20 acres, in combination with the 600 acres enclosed by the existing game farm, is not considered limiting because similar habitat is available in adjacent areas.

The proposed expansion would account for approximately 0.75 mile of additional fencing which could present a minor to no impact to the seasonal and daily movements of big game through this area. The proposed expansion could alter local movement of some individual wild deer and elk, forcing them to reroute their daily movement around the exterior enclosure fences. This impact is considered minor to none because big game movement in the area would not be significantly impeded. Existing open space and the small size of the proposed enclosure would allow easy migration around the proposed expansion.

Impacts to bird species would likely affect individuals and not populations. The continued opening of the forest would further favor bird species associated with forest edges over bird species requiring forest interior habitat. The game farm fencing could pose a flight hazard for forest raptors in pursuit of small birds.



Figure 3. Mule Deer and elk seasonal ranges.

WATER RESOURCES

Elk fecal material would not enter any flowing water systems in the expansion area and therefore would not affect water quality for aquatic life or other uses.

VEGETATION RESOURCES

The intent of the proposed expansion is to provide additional pasture for a portion of the elk in the existing game farm. The total number of elk in the game farm would remain the same. Because of the size of the existing game farm and the current stocking rate, vegetation is currently in good condition. Because the stocking rate would remain the same and the expansion area would not be grazed season long by game farm animals, the vegetation in the expansion area should remain in good condition. Past use of the proposed expansion area was for livestock grazing.

SOCIO-ECONOMIC RESOURCE

The principal land use of the proposed expansion area and vicinity is a combination of limited timber harvesting, game farming and livestock management. The proposed expansion is consistent with existing land uses. The area could potentially be developed for residential or commercial use; however, there are currently no plans for a major subdivision in the vicinity of the Proposed Action. Development of land within the vicinity of the proposed expansion area is not anticipated in the near future due to the difficult access during the winter period because of heavy snowfall.

CUMULATIVE EFFECTS

The general area of the game farm is a mix of forested and open habitats. Cumulatively there will be approximately 4.25 miles of exterior big game fencing, and the proposed expansion will account for approximately .75 miles of this fencing. The current game farm consists of approximately 600 acres with 3.5 miles of exterior fences and doesn't appear to limit wild animal movement. The addition of 20 acres and .75 miles of fence to the existing game farm is not expected to change this because it is adjacent to the existing game farm and limited in size.

EA CONCLUSION

MEPA and the game farm statutes require FWP to conduct an environmental analysis for game farm licensing as described in the *Introduction* section of this EA. FWP prepares EAs to determine whether a project would have a significant effect on the environment. If FWP determines that a project would have a significant impact that could not be mitigated to a level that is less than significant, the FWP would prepare a more detailed EIS before making a decision.

Based on the criteria evaluated in this EA, an EIS will not be required for the proposed expansion of the Phantom Bull Elk Ranch. The appropriate level of analysis for the Proposed Action is a mitigated EA because all impacts of the proposed game farm expansion have been accurately identified in the EA, and would be mitigated to minor or none.

MITIGATION MEASURES

Mitigation measures described in this section address both minor and significant impacts. FWP may require stipulations to mitigate all potentially significant and some minor impacts from the Proposed Action. Most predicted impacts from the Proposed Action are addressed by mitigation measures that are strongly recommended for the proposed facility to remain in compliance with state and federal environmental regulations, but would not be required.

Required Stipulations

The following stipulation is designed to mitigate wildlife health impacts identified in the EA:

Report ingress of any wild game animals and predators (i.e., bear, lion, and coyote) as well as egress of domestic elk to FWP immediately. The report must contain the probable reason why or how ingress/egress occurred.

Risk to wildlife health from contact between game farm animals and wild game is predicted to increase due to the following factors (see Section 5 of Part II in this EA):

- the site would be located in an area utilized occasionally by wild game; and

Information required by the stipulation in the event of ingress or egress would help both the applicant and FWP to address ingress/egress and to minimize contact between wild and domestic animals. This stipulation, in addition to existing FWP fencing and wildlife protection requirements, would effectively reduce the risk to wildlife.

Recommended Mitigation Measures

The following mitigation measures address additional impacts identified in the EA that are likely to result from the Proposed Action.

Land Resources

Maintain a reasonable stocking rate within the game farm enclosures to minimize changes in soil structure and potential increases in runoff and water erosion from disturbed ground. (see Sections 1, 3, and 4, Part II of this EA). A reasonable stocking rate is defined in Part II (Environmental Review) of the Draft EA.

Water Resources

Excess fecal material and dead animals should be moved to an approved site that is isolated from surface water and groundwater.

Vegetation

The following measures are recommended to mitigate impacts to vegetation.

- Establish a rest/rotation grazing system within the proposed game farm;
- Stock elk at a rate which will preserve the vegetative resource and soil integrity over time;
- Maintain vegetative productivity by farming or interseeding portions of the pasture over time;
- Feed only hay produced locally, or certified weed seed free hay which will slow the introduction of noxious weeds not currently in the vicinity; and,
- Develop a weed control plan in conjunction with the Broadwater County Weed Control District.

Fish and Wildlife

The following standard game farm management practices would help to minimize impacts to fish and wildlife:

- Store hay, feed, and salt away from exterior fences or enclose in buildings.

- Feed game farm animals at interior portions of the enclosure and not along the perimeter fence.
- Remove dead animals, excess fecal material, and waste feed from the game farm and deposit at an approved site not likely to be used by humans, domestic animals, and wild animals. Alternatively, dead animals could be buried (minimum depth of 2 feet) and fecal material could be composted on site in areas away from the riparian/wetland. Disposal must meet county regulations for solid waste.
- Inspect exterior game farm fence on a regular basis and immediately after events likely to damage fence to ensure its integrity with respect to trees, frost-heaving, corrosion, burrowing animals, predators, and other game animals.
- If fence integrity or ingress/egress becomes a problem, adjust the fence as necessary, including double fencing, increased post support, replacing damaged posts, or increased fence height.
- During winters of exceptional snow cover, remove snow on either side of the perimeter fence to prevent ingress/egress, or keep game farm animals away from fence areas where significant snow buildup occurs.
- Risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, and management of manure in accordance with DEQ (1996) guidance.
- Construct a game proof fence in accordance with FWP requirements or seek a waiver to construct a game proof fence of an alternative design.

Cultural and Historical Resources

If archeological artifacts are observed during construction or operation activities at the game farm, work should stop and the discovery reported to:

Montana Historical Society
 Historic Preservation Office
 1410 8th Avenue; P.O. Box 201202
 Helena, Montana 59620
 (406) 444-7715

If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take photographs, and preserve the artifact(s).

PART I. GAME FARM LICENSE APPLICATION

Montana Fish, Wildlife & Park's authority to regulate game farms is contained in sections 87-4-406 through 87-

ENVIRONMENTAL ASSESSMENT CHECKLIST

4-424, MCA and ARM 12.6.1501 through 12.6.1519.

1. Name of Project: Phantom Bull Elk Ranch Game Farm Expansion

Application Date: May 19, 1999

2. Name, Address and Phone Number of Applicant(s):

Jack Bridgewater
720 Gurnett Cr Road
Townsend, Montana 59644

(406) 266-5568 (home)

3. If Applicable:

Estimated Construction/Commencement Date: June, 1999

Estimated Completion Date: October, 1999

Is this an application for expansion of existing facility or is a future expansion contemplated?

This is an application for a 20-acre expansion of an existing 600-acre facility.

4. Location Affected by Proposed Action (county, range and township):

Broadwater County (Figure 1)

Expansion : 20 acres in the (T8N R3E, SE 1/4SW1/4S1/2SE1/4, LOT 9, Section 3)
(see Figure 2 for Expansion Area location)

5. Project Size: Estimate the number of acres that would be directly affected that are currently:

(a) Developed:

residential..... 0 acres

industrial..... 0 acres

(d) Floodplain... 0 acres

(e) Productive:

irrigated cropland... 0 acres

(b) Open Space/Woodlands/Areas..... 0 acres

dry cropland..... 0 acres

forestry..... 5 acres

rangeland meadow... 15 acres

(c) Wetlands/Riparian Areas..... 0 acres

6. Map/site plan:

The following maps are attached as part of the Summary (see Table of Contents):

Figure 1:	Location Map
Figure 2:	Site Map Showing Existing Game Farm and Expansion Area
Figure 3:	Site Map Showing Big Game Winter Range

7. Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action:

The Montana Department of Fish, Wildlife and Parks (FWP) received an application in May, 1999 to expand the Phantom Bull Elk Ranch game farm. The game farm expansion is located approximately 20 miles northeast of Townsend, Montana (Figure 1). The Proposed Action provides for a 20-acre expansion in addition to an existing 600-acre elk game farm by adding a new pasture adjacent to the existing game farm (Figure 2).

The proposed expansion area would be a 20-acre area located along the west portion of the existing game farm. This area would share a common fence line with the 600-acre existing enclosure.

Fence construction would be in accordance with requirements of FWP under ARM 12.6.1503A unless a waiver is granted by FWP for construction of a game-proof fence of an alternative design. Trees in the expansion areas would be cleared up to 20 feet on either side of the exterior fence and there would be some thinning of trees within the proposed enclosures.

The applicant is currently operating an elk farm in Montana under a license originally approved by FWP in October, 1991. The Proposed Action would include placing a portion of the permitted 300 elk in the expansion area for a portion of the year. The total number of animals that would be licensed for the entire (existing plus proposed expansion area) Phantom Bull Elk Ranch Game Farm would remain at the current level of 300 elk. The applicant would continue to breed, sell and dispose of these elk in accordance with Montana game farm and disease control requirements stipulated in the Administrative Rules of Montana (ARM) Title 87, Chapter 4, Part 4 and ARM Title 81, Chapter 2, Part 7.

The proposed expansion area is owned fee title by Jack Bridgewater.

Quarantine and holding facilities for the proposed expansion areas are located in the existing game farm. The DoL has issued approval of the quarantine facilities for the existing game farm. There is no additional quarantine and holding facility proposed or required for the expansion area.

The purpose of the expansion is to provide additional grazing acreage for a portion of the existing game farm animals. Elk from the game farm are produced to supply the market demand for breeding animals, shooting and antlers.

8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction:

(a) Permits:

<u>Agency Name</u>	<u>Permit</u>	<u>Approval Date and Number</u>
Department of Livestock	approval of quarantine and handling facility	N/A

(b) Funding:

<u>Agency Name</u>	<u>Funding Amount</u>
none	

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
Montana Department of Livestock (DoL)	disease control

Montana Department of Environmental Quality (DEQ)	water quality
Montana State Historical Preservation Office (SHPO)	cultural resources
Montana Department of Natural Resources and Conservation (DNRC)	water rights
U.S. Army Corps of Engineers	wetlands
Broadwater County Conservation District	stream crossings
Broadwater Weed Control District	weed control

9. List of Agencies Consulted During Preparation of the EA: (These agencies will be sent the Draft EA)

Montana Department of Livestock (DoL)
Montana Department of Environmental Quality (DEQ)
Montana State Historical Preservation Office (SHPO)
Montana Department of Natural Resources and Conservation (DNRC)
Broadwater Conservation District
U.S. Forest Service (USFS)

PART II. ENVIRONMENTAL REVIEW

This section of the EA presents results of an environmental review of the Proposed Action. The assessment evaluated direct and indirect impacts and cumulative effects of the Proposed Action on the following resources of the physical environment: land, air, water, vegetation, fish and wildlife; and the following concerns of the human environment: noise, land use, human health risk, community impacts, public services and taxes, aesthetics and recreation, and cultural and historical resources. Impacts are determined for one of four categories: unknown, none, minor and significant. For purposes of this EA, and in accordance with ARM 12.2.429 through 12.2.431, terms used throughout this EA are defined as follows:

Cumulative Effects: The collective impacts on the human environment of the Proposed action when considered in conjunction with other past and present actions related to the Proposed Action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impacts statement evaluation, or permit processing procedures.

Unknown Impacts: Information is not available to facilitate a reasonable prediction of potential impacts.

Significant Impacts: A determination of significance of an impact in this EA is based on individual and cumulative impacts from the Proposed Action. If the Proposed Action results in significant impacts that can not be effectively mitigated, FWP must prepare an Environmental Impact Statement (EIS). The following criteria are considered in determining the significance of each impact on quality of the physical and human environment:

- severity, duration, geographic extent and frequency of occurrence of the impact;
- probability that the impact will occur if the Proposed action occurs;
- growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative effects;
- quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources or values;
- importance to the state and to society of each environmental resource or value that would be affected;
- any precedent that would be set as a result of an impact of the Proposed Action that would commit FWP to future actions with significant impacts or a decision in principle about such future actions; and
- potential conflict with local, state, or federal laws, requirements, or formal plans.

Reasonable Stocking Rate: The density of animals appropriate to maintain vegetative cover in pasture condition that minimizes soil erosion from major precipitation events and snowmelt.

This Environmental Assessment addresses proposed activities described in the Proposed Action. Evaluation of Impacts from the Proposed Action, including Secondary and Cumulative Impacts, on the Physical and Human Environment are described on the following pages in Check-List format.

PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u>	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	Would the Proposed Action result in:	UNKNOWN	NONE	MINOR	SIGNIFICANT	
a. Soil instability or changes in geologic substructure?						
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?						1(b)
c. Destruction, covering or modification of any unique geologic or physical features?						1(c)
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?						

PROPOSED ACTION:

- 1(b) Impacts related to soil fertility are unknown. Depending on the stocking rate and impact on present vegetation, soil fertility may increase with the addition of elk fecal matter to the soil. Fertility could decrease if the stocking rate causes overgrazing and removal of vegetation to levels that cause increased runoff and erosion that would remove the soil organic horizon. However, it is felt that because the pasture will be used only periodically by a portion of the total permitted elk that impacts will be negligible.
- 1(c) Timber on a small portion of the 20-acre parcel would be thinned to reduce forest canopy in order to facilitate fence construction and maintenance.

NO ACTION:

By not reducing the forest cover or placing game farm elk on the 20-acre parcel, soil compaction would not be affected, tree wind-throw hazard would be the same as it currently exists; and runoff and erosion would not be changed from the current condition.

CUMULATIVE EFFECTS:

While this expansion area is adjacent to the existing game farm there are no perennial bodies of water connecting the two areas. The expansion area is not expected to contribute to erosion or sedimentation in this area.

COMMENTS:

Reducing tree density in a 20 foot buffer area on either side of the exterior fence line would mitigate any potential hazards from wind-thrown trees.

Required Stipulations: None

Recommended Mitigation Measures:

Maintaining a reasonable elk stocking rate (see page 13) within the game farm enclosures would minimize increases in runoff and erosion from disturbed ground.

PHYSICAL ENVIRONMENT

2. <u>AIR</u>	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
Would the Proposed Action result in:						
a. Emission of air pollutants or deterioration of ambient air quality?						
b. Creation of objectionable odors?					Yes	2(b)
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?						
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?						

PROPOSED ACTION:

The impact of the proposed expansion on air quality from the Proposed Action would be minimal to none. This particular game farm is fairly isolated and there are no immediate neighbors. Also, due to the relatively large size it is felt that there would be no impact on air quality.

- 2(b) If the numbers of elk contained in the expansion area are managed at a density greater than a reasonable stocking rate, the facility may contain a high concentration of odors. A "reasonable stocking rate" is defined on page 17. Odor problems can result from poor waste management practices in operations containing concentrated numbers of animals.

NO ACTION:

Impacts to air quality resulting from the No Action alternative would be none in the expansion area and similar to those described in this section for the Proposed Action for the existing game farm.

CUMULATIVE EFFECTS:

The impact of the proposed expansion on air quality would be expected to be minimal to none. The Proposed Action does not include road construction activities that would contribute to the concentration of particulate matter in the area ambient air.

COMMENTS:

Dust and odor are not expected to be of significant concern at the proposed game farm site due to the sparse population in this area. If dust and/or odor problems arise, mitigation measures can be implemented.

Required Stipulations: None.

Recommended Mitigation Measures:

Dust management activities include spraying water on unpaved roads during the dry season, vegetating exposed ground where possible, protecting fill piles from wind erosion, and limiting ground disturbance to only the area necessary to complete the job.

Employ the following best management practices (BMPs) to reduce odor problems if they occur: (1) in areas where waste is stored and treated, incorporate waste into soil quickly by plowing or discing and spread the material during cool weather or in the morning during warm, dry weather; and (2) cover buried animal carcasses on the game farm with a minimum of 2 feet of soil; carcasses may also be sent to a licensed municipal landfill if approved by the landfill operator; carcasses should not be disposed of in or adjacent to water bodies, roads, and ditches. These and other BMPs are described in "Guide to Animal Waste Management and Water Quality Protection in Montana" (DEQ 1996).

PHYSICAL ENVIRONMENT

3. <u>WATER</u>	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
Would the Proposed Action result In:						
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?						
b. Changes in drainage patterns or the rate and amount of surface runoff?						
c. Alteration of the course or magnitude of flood water or other flows?						
d. Changes in the amount of surface water in any water body or creation of a new water body?						
e. Exposure of people or property to water related hazards such as flooding?						
f. Changes in the quality of groundwater?						
g. Changes in the quantity of groundwater?						
h. Increase in risk of contamination of surface or groundwater?						
i. Violation of the Montana non-degradation statute?						
j. Effects on any existing water right or reservation?						
k. Effects on other water users as a result of any alteration in surface or groundwater quality?						
l. Effects on other water users as a result of any alteration in surface or groundwater quantity?						

PROPOSED ACTION:

The 20-acre proposed expansion area is located on gently sloping land with internal drainage. There is no live or standing water in the proposed expansion area.

NO ACTION:

Under the no action alternative the current use by livestock would probably continue.

CUMULATIVE EFFECTS:

No cumulative effects are expected in relation to water quality.

COMMENTS:

Required Stipulations: None

Recommended Mitigation Measures:

Maintaining a reasonable elk stocking rate in the proposed expansion areas would mitigate potential erosion and sedimentation impacts. Other water quality impacts could be minimized by moving dead animals and excess fecal material to an approved site that is more isolated from surface water drainage.

PHYSICAL ENVIRONMENT

4. <u>VEGETATION</u> Would the Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Changes in the diversity, productivity or abundance of plant species?					Yes	4(a)
b. Alteration of a plant community?					Yes	4(a)
c. Adverse effects on any unique, rare, threatened, or endangered species?						
d. Reduction in acreage or productivity of any agricultural land?						
e. Establishment or spread of noxious weeds?					Yes	4(e)

PROPOSED ACTION:

- 4(a) Continuous use of the pastures could produce vegetative degradation over time, resulting in decreasing vegetation production, reduced ground cover, increased soil erosion and invasion of noxious weeds. Vegetative condition is dependent on the stocking rate and pattern of rotation of each pasture. Trees remaining accessible to game farm elk could be debarked by domestic elk, and eventually die. Vegetation within the game farm enclosure could be heavily impacted, but only minor to no impacts to vegetation would occur in the immediate vicinity of the game farm.
- 4(e) At the present time, there is an active weed control program on the existing game farm. This program if expanded to the expansion area should be adequate to address any potential for increased weed infestation due to disturbance from logging and grazing.

NO ACTION:

The No Action Alternative would result in no change in existing vegetation.

CUMULATIVE EFFECTS:

Cumulative effects of past, present and reasonably foreseeable activities in the vicinity of the Proposed Action would be similar to those described for the Proposed Action.

COMMENTS:

Required Stipulations: None

Recommended Mitigation Measures:

Effects on vegetation can be mitigated by establishing a rest-rotation grazing system, using a reasonable stocking rate which maintains the vegetative resource over time, and developing a weed control plan in conjunction with the Broadwater Weed Control District, which includes the proposed expansion areas.

PHYSICAL ENVIRONMENT

5. <u>FISH/WILDLIFE</u>	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Deterioration of critical fish or wildlife habitat?					Yes	5(a)
b. Changes in the diversity or abundance of game species?					Yes	5(b)
c. Changes in the diversity or abundance of nongame species?						
d. Introduction of new species into an area?						
e. Creation of a barrier to the migration or movement of animals?					Yes	5(e)
f. Adverse effects on any unique, rare, threatened, or endangered species?						
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?						
h. Risk to wildlife health from disease?					Yes	5(h)

PROPOSED ACTION:

The Proposed Action would place a portion of the permitted 300 elk on 20 acres of mostly meadow habitats for a portion of the year. The proposed expansion would not result in an increase in the total number of elk on the Phantom Bull Elk Ranch game farm.

- 5(a) Wildlife distribution in the vicinity of the proposed expansion is presented in **Figure 3**. This area is used seasonally by a mule deer and wild elk. The entire game farm area including the proposed expansion

is not considered winter range for these 2 species as it is high elevation and receives significant snowfall. Wild moose, black bear and mountain lions are also known to occur in the vicinity of the game farm. Although this area is not considered critical habitat for any big game species, the Proposed Action would exclude wild deer and elk from 20 acres of suitable habitat. The loss of 20 acres in combination with the 600 acres enclosed by the existing game farm, is considered minor because similar habitat is widely available in adjacent areas.

- 5(b) Black bear and mountain lions inhabit the general area and may be attracted to the game farm due to the concentration of domestic elk (both species) and grain stored for elk feed (black bear). Both species are capable of entering the enclosure and although live capture and removal is possible, it is not without risks. This may affect individuals but not populations. There is also a possibility that wild deer and elk may enter the enclosure. Wild ungulates exposed to domestic elk would likely be destroyed rather than released back to the wild. This action may affect individuals but not populations.
- 5(e) The 20-acre enclosure may alter local movement of some individual wild deer and elk forcing them to reroute their daily movement around the exterior enclosure fences. Cumulatively there would be approximately 4.25 miles of exterior big game fencing, and the proposed expansion would account for approximately 0.75 mile of this fencing. The existing game farm has been in existence since 1991 and doesn't appear to have significantly restricted movement of wild ungulates in this area.
- 5(h) There is an undetermined potential of domestic elk carrying or becoming infected with a contagious disease or parasite such as tuberculosis, meningeal worm, or chronic wasting disease and then coming in contact (through-the-fence, noses-to-nose, nose-to-soil, water, or ingress/egress) with wild deer, elk, or other wildlife. Release of a contagious disease in the wild could severely impact native wildlife populations. It is also possible that diseases and parasites carried by wild elk could be introduced to domestic elk with equally severe impacts. Ingress of wild elk, deer, and moose would likely result in the destruction of the trespassing animals by FWP.

NO ACTION:

Under the No Action Alternative, the proposed expansion area would most likely remain in it's current state and would remain available for use by wild animals.

CUMULATIVE EFFECTS:

There would be minor cumulative impacts associated with the expansion of the existing game farm. The 20-acre enclosure may alter local movement of some individual wild deer and elk forcing them to reroute their daily movement around the exterior enclosure fences. Cumulatively there would be approximately 4.25 miles of exterior big game fencing, and the proposed expansion would account for approximately .75 miles of this fencing. Although this area is used during the spring, summer and fall by mule deer and elk it is unlikely to significantly limit their seasonal and daily movements through this area.

COMMENTS:

One stipulation is required to reduce predicted impacts from ingress/egress. Other mitigation measures are recommended to minimize potential impacts to free-ranging wildlife and fish species.

Required Stipulations:

Report ingress of any wild game animals and predators (i.e., bear, lion, and coyote) as well as egress of domestic elk to the Montana FWP immediately. The report must contain the probable reason why or how ingress/egress occurred.

The above stipulation is imposed to mitigate predicted risk to wildlife health posed by the proposed game farm. Risk to wildlife health from contact between game farm animals and wild game is increased due to the following factors:

- the site would be located in an area currently utilized by wild game;

Information required by the stipulation in the event of ingress or egress would help both the applicant and FWP to address ingress/egress and to minimize contact between wild and domestic animals. This stipulation, in addition to existing FWP fencing and wildlife protection requirements, would effectively reduce the risk to wildlife to below significant levels.

Recommended Mitigation Measures:

- Store hay, feed, and salt away from exterior fences or enclose in buildings.
- Feed game farm animals at interior portions of the enclosure and not along the perimeter fence.
- Remove dead animals, excess fecal material, and waste feed from the game farm and deposit at an approved site not likely to be used by humans, domestic animals, and wild animals. Alternatively, dead animals could be buried (minimum depth of 2 feet) and fecal material could be composted on site in areas away from the riparian/wetland. Disposal must meet county regulations for solid waste.
- Inspect exterior game farm fence on a regular basis and immediately after events likely to damage fence to ensure its integrity with respect to trees, frost-heaving, corrosion, burrowing animals, predators, and other game animals.
- If fence integrity or ingress/egress becomes a problem, adjust the fence as necessary, including double fencing, increased post support, replacing damaged posts, or increased fence height.
- During winters of exceptional snow cover, remove snow on either side of the perimeter fence to prevent ingress/egress, or keep game farm animals away from fence areas where significant snow buildup occurs.
- Risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, and management of manure in accordance with DEQ (1996) guidance.
- Construct a game proof fence in accordance with FWP requirements or seek a waiver to construct a game proof fence of an alternative design.

HUMAN ENVIRONMENT

6. <u>NOISE EFFECTS</u>	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
Would the Proposed Action result in:						
a. Increases in existing noise levels?					Yes	6(a)
b. Exposure of people to severe or nuisance noise levels?						

PROPOSED ACTION:

- 6(a) The Proposed Action would result in a minor short-term increase in existing noise levels from fence construction, land clearing, and other activities conducted to develop the game farm. A seasonal increase in elk bugling would also be expected to occur.

NO ACTION:

No impacts to existing noise levels are expected from the No Action Alternative.

CUMULATIVE EFFECTS:

No additional impacts from past, present or reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

Due to the sparse population in the area, noise generated from the game farm operation should not cause a problem. If noise concerns are raised, mitigation measures could be employed.

Required Stipulations: None.

Recommended Mitigation Measures:

Impacts to neighbors from construction noise could be reduced by limiting noisy activities to daylight hours and completing construction as soon as possible.

HUMAN ENVIRONMENT

7. LAND USE	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
Would the Proposed Action result in:						
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?						7(a)
b. Conflict with a designated natural area or area of unusual scientific or educational importance?						
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the Proposed Action?						
d. Conflict with any existing land use that would be adversely affected by the Proposed Action?						
e. Adverse effects on or relocation of residences?						

PROPOSED ACTION:

7(a) The principal land use of the proposed expansion area and vicinity is rangeland for livestock management and is relatively undeveloped with few residences. The proposed expansion is not inconsistent with existing land uses. The proposed expansion area is not zoned for a specific use and is currently utilized by wild game and livestock. It could potentially be developed for residential or commercial use; however, there are currently no plans for a major subdivision (six or more houses) in the vicinity of the Proposed Action. Development of land within the vicinity of the proposed expansion area is not anticipated in the near future due to the difficult access during the winter period.

NO ACTION:

If the proposed expansion area were not fenced, the expansion area would likely be used for agriculture, unused open space, or development.

CUMULATIVE EFFECTS:

The land use described in the Proposed Action is consistent with existing land use in the vicinity of the proposed expansion areas. Because no proposals or applications for future subdivisions in the vicinity of the proposed expansion are planned, and no past or present activities have adversely affected the expansion area, no potential cumulative effects on land use from the Proposed Action and past, present and future actions to land use are anticipated.

COMMENTS:

Because impacts to land use are negligible, no mitigation measures are recommended.

HUMAN ENVIRONMENT

8. RISK/HEALTH HAZARDS	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
Would the Proposed Action result in:						
a. Risk of dispersal of hazardous substances (including, but not limited to chemicals, pathogens, or radiation) in the event of an accident or other forms of disruption?					Yes	8(a)
b. Creation of any hazard or potential hazard to domestic livestock?						8(b)
c. Creation of any hazard or potential hazard to human health?						8(c)

PROPOSED ACTION:

- 8(a) Spread of a contagious wildlife disease from game farm animals may directly or indirectly (depending upon the nature of the disease) affect the human environment by reducing the number of wild deer and elk available for hunting, or expose hunters to diseases that are contagious to humans. This analysis assumes that all domestic elk entering the enclosure would have been genetically screened or otherwise certified that they do not carry red deer genes.
- 8(b) Two Montana regulatory diseases (brucellosis and tuberculosis) are potentially transmittable from elk to cattle and cattle to elk. The risk of disease being passed from domestic elk to domestic livestock would be minimal if the fence integrity is maintained and appropriate mitigation measures (see section 5, *Fish and Wildlife*) are followed. The potential for disease transmission to domestic livestock and wildlife from game farm animals can be also be mitigated through Department of Livestock disease testing requirements. All animals placed on this game farm would be required to be tested for tuberculosis at the time of import, purchase and/or transportation to the game farm. A test for brucellosis is required for all cervidae that are sold or moved within the state, and is required for all game farm animals imported into Montana. Each game farm is required to have an isolation pen (quarantine facility) on the game farm to isolate any animals that are imported or become ill. The state veterinarian may require additional testing and place herds under strict quarantine should problems arise.
- 8(c) If tuberculosis or brucellosis were to be transmitted from domestic elk to wild elk and deer, hunters field dressing wild elk and deer would be subject to some risk of infection. Veterinarians and meat cutters working with diseased game farm animals are at risk of becoming infected with brucellosis or tuberculosis. Risk to human health from diseased animals could be significant, but routine brucellosis

and tuberculosis testing requirements for game farm animals offer a measure of surveillance that minimizes that risk. Failure to comply with these requirements is grounds for license revocation.

NO ACTION:

The proposed game farm would be used to pasture cattle and raise hay under the No Action Alternative. The risks of disease transmission to wildlife and humans would be minimal because cattle herds are generally vaccinated for major diseases and treated for parasites. No impacts or risks would occur from health hazards under the No Action Alternative.

CUMULATIVE EFFECTS:

No additional impacts from past, present or reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

Required Stipulations: None.

Recommended Mitigation Measures:

The mitigation measures recommended in Section 5 (*Fish/Wildlife*) are applicable to this section. In addition, risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, management of manure in accordance with DEQ (1996) guidance, and adherence to disease testing requirements.

HUMAN ENVIRONMENT

9. COMMUNITY IMPACT Would the Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?						9(a)
b. Alteration of the social structure of a community?						9(a)
c. Alteration of the level or distribution of employment or community or personal income?						9(c)
d. Changes in industrial or commercial activity?						
e. Changes in historic or traditional recreational use of an area?						(9a)
f. Changes in existing public benefits provided by affected wildlife populations and wildlife habitats (educational, cultural or historic)?						
g. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?						

PROPOSED ACTION:

- 9(a) The Proposed Action is consistent with the land use in the vicinity of the proposed expansion area. Subdivision development of land in the area is not anticipated in the near future due to the difficult access.
- 9(c) No additional employees would be hired as a result of the Proposed Action. While the Proposed Action may increase the income level for the applicant and increase taxes paid to the county, it is not expected to significantly impact the community income levels.

NO ACTION:

No adverse impacts to the community would result from the No Action Alternative.

CUMULATIVE EFFECTS:

No adverse impacts to the community are expected to result from the Proposed Action and past, present and reasonably foreseeable activities in the vicinity of the Phantom Bull Elk Ranch game farm.

COMMENTS:

No mitigation measures are recommended.

HUMAN ENVIRONMENT

10. <u>PUBLIC SERVICES/ TAXES/UTILITIES</u> Would the Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. A need for new or altered government services (specifically an increased regulatory role for FWP and Dept. of Livestock)?						10(a)
b. A change in the local or state tax base and revenues?						
c. A need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?						

PROPOSED ACTION:

- 10(a) FWP and DoL would incur an increased work load associated with the game farm expansion for fence, animal inspections and monitoring.

NO ACTION:

No additional taxes would be collected from the applicant.

CUMULATIVE EFFECTS:

No adverse cumulative effects to public services, taxes and utilities are anticipated to result from the Proposed Action and past, present and reasonably foreseeable activities in the vicinity of the Phantom Bull Elk Ranch game farm.

COMMENTS:

No mitigation measures are recommended.

HUMAN ENVIRONMENT

11. <u>AESTHETICS/RECREATION</u>	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	Would the Proposed Action result in:	UNKNOWN	NONE	MINOR	SIGNIFICANT	
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?						
b. Alteration of the aesthetic character of a community or neighborhood?						
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings?						

PROPOSED ACTION:

No adverse impacts to the public view, the character of the neighborhood, or to recreational opportunities in the area would result from the Proposed Action.

NO ACTION:

No adverse impacts to the public view, the character of the neighborhood, or to recreational opportunities in the area would result from implementation of the No Action Alternative.

CUMULATIVE EFFECTS:

Impacts from the Proposed Action and past, present and reasonably foreseeable activities in the vicinity of the Phantom Bull Elk Ranch game farm would be similar to those described for the Proposed Action.

COMMENTS:

No mitigation measures are recommended with respect to aesthetics and recreation.

HUMAN ENVIRONMENT

<u>12. CULTURAL/HISTORICAL RESOURCES</u>	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	Would the Proposed Action result in:	UNKNOWN	NONE	MINOR	SIGNIFICANT	
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?					Yes	12(a)
b. Physical change that would affect unique cultural values?						
c. Effects on existing religious or sacred uses of a site or area?						12(a)

PROPOSED ACTION:

12(a) It is currently unknown if cultural resources exist on the proposed expansion area. However, the major physical change on this site through this proposal would be fence construction.

NO ACTION:

Similar impacts are expected to occur if the site is used for agricultural purposes. If the site is developed for commercial or residential use, potential impacts to cultural resources from excavations may increase.

CUMULATIVE EFFECTS:

Impacts from the Proposed Action and past, present and reasonably foreseeable activities would be similar to those described under the Proposed Action.

COMMENTS:

Required Stipulations: None.

Recommended Mitigation Measures:

If archeological artifacts are observed during construction of the game farm fence or from other activities, work should stop in the area and the discovery reported to:

Montana Historical Society
Historic Preservation Office
1410 8th Avenue; P.O. Box 201202
Helena, Montana 59620
(406) 444-7715

If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take photographs, and preserve the artifact(s).

HUMAN ENVIRONMENT

13. SUMMARY EVALUATION OF SIGNIFICANCE Would the Proposed Action, considered as a whole:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)					Yes	13(a)
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?					Yes	13(b)
c. Potentially conflict with the substantive requirements or any local, state, or federal law, regulation, standard or formal plan?						
d. Establish a precedent or likelihood that future actions with significant environmental impacts would be proposed?						
e. Generate substantial debate or controversy about the nature of the impacts that would be created?					Yes	13(e)

PROPOSED ACTION:

- 13(a) There is some minor cumulative impact associated with the proposed expansion areas and the existing enclosures forcing wild deer and elk to alter their daily movements through this area (Figure 3).
- 13(b) The Proposed Action does involve potential, uncertain risks to wildlife. An unlikely, but hazardous event should it occur, would be the spread of a disease or parasite from domestic elk to wild elk, deer, moose or livestock. The risk of this event occurring can be reduced by following the mitigation measures listed in Sections 5 and 8 of this EA.
- 13(e) The nature of impacts to wildlife from elk game farms is currently under debate in Montana and other states. The following issues are of the greatest concern:
- Disease transmission from game farm elk to wildlife is possible if the game farm elk is diseased and has an opportunity to come into contact with wild elk or deer.
 - The potential for wild animals to ingress into the game farm. Ingressing elk and deer are generally killed, by FWP, to prevent potential disease transmittal. Ingressing mountain lions and black bears may be immobilized and removed.

These issues are particularly controversial when game farms block migration routes or consume significant areas of land historically utilized by wild game. Inadequate perimeter fencing and fence monitoring on the part of the game farm operator can also lead to ingress and egress events and nose-to-nose contact between wild game and game farm animals. The existing game farm doesn't appear to hinder seasonal movement by big

game animals in the vicinity. The proposed expansion would be a relatively small portion of the total game farm acres and is not expected to create any additional barriers to wild ungulates.

PART II. ENVIRONMENTAL REVIEW (Continued)

2. SUMMARY EVALUATION OF SIGNIFICANCE CRITERIA

- a. Does the Proposed Action have impacts that are individually minor, but cumulatively considerable? (A project may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)

There is some minor cumulative impact associated with the proposed expansion areas and the existing enclosures forcing wild deer and elk to alter their daily movements through this area. This cumulative impact is largely mitigated by availability of adjacent habitat.

- b. Does the Proposed Action involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?

An unlikely, but extremely hazardous event should it occur, would be the spread of a disease or parasite from domestic elk to wild elk, deer, moose or livestock. The risk of this event occurring can be reduced by following the mitigations listed in Sections 5 and 8.

- c. Description and analysis of reasonable alternatives (including the no action alternative) to the Proposed Action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:

No Action Alternative: The No Action Alternative would avoid the cumulative nature of potential impacts listed above. The existing game farm would remain a minor obstacle for wild deer and elk, a potential source of disease and parasites for wild deer and elk and an attractant to large carnivores. This site would likely continue to be utilized for livestock management. The No Action Alternative would probably not result in exclusion of wildlife from this site.

- d. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

This section provides an analysis of impacts to private property by proposed restrictions or stipulations in this EA as required under 75-1-201, MCA, and the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The analysis provided in this EA is conducted in accordance with implementation guidance issued by the Montana Legislative Services Division (EQC 1996). Mitigation measures described in this section address both minor and significant impacts. FWP will require stipulations to mitigate all potentially significant impacts from the Proposed Action. Most potential minor impacts from the Proposed Action are addressed as mitigation measures that are strongly recommended, but not required.

Required Stipulations

Report the ingress of any wild game animals and predators (i.e., bear, lion, and coyote) as well as egress of domestic elk to FWP immediately. The report must contain the probable reason why or how ingress/egress occurred.

Restriction on Private Property Use

This stipulation restricts the use of private property by effectively requiring that the proposed game farm be monitored at least once every 24 hours for ingress or egress events. The stipulation is consonant with the current FWP requirement to report egress events immediately [ARM 12.6.1517(2)].

Alternatives

Do not report ingress and egress events to FWP immediately.

This stipulation would not adequately address the increased risk to wildlife health. Ingressing wild animals must be detected immediately to prevent contact with wild game after contact with game farm animals.

Benefits from Imposing the Stipulation

This stipulation is imposed to mitigate predicted risk to wildlife health posed by the existing game farm and the proposed expansion. Risk to wildlife health from contact between game farm animals and wild game would increase due to the following factors.

- the site would be located in an area currently utilized by wild game;

Information provided by the stipulation would help the applicant and FWP to address ingress and egress incidents and to minimize contact between wild and domestic animals. This stipulation, in addition to existing FWP fencing and wildlife protection requirements, would effectively reduce the risk to wildlife health.

Types of Expenditures the Stipulation Would Require

The stipulation to require immediate notice of ingress and egress events would not impose any additional expenditures beyond those necessary to immediately report egress events in accordance with ARM 12.6.1517(2).

Stipulation's Effect on Property Values

None.

PART III. NARRATIVE EVALUATION AND COMMENT

- **Wildlife use of the area and potential for through-the-fence contact with game farm animals (consider year-around use, traditional seasonal habitat use, and location of travel routes and migration corridors).**

Through the fence contact: The proposed game farm would be located in moderate density mule and white-tailed deer habitat, and wild elk on occasion may pass through this area and they might be attracted to the game farm by domestic elk. These wild elk intermingle with other elk within the Big Belt Mountains and transmission of diseases or parasites to wild elk would be a significant event. Nose-to-nose contact is most likely to occur between wild and domestic elk and unlikely to occur between domestic elk and wild deer. In addition, transitory wild elk may be attracted to domestic elk during the rut. Transmission of disease or parasites may occur during nose-to-nose contact, nose-to-body contact, and by contacting vegetation and feces along the fence line. Disease transmission may occur from wild ungulates to domestic elk and from domestic elk to wild ungulates. Diseases such as tuberculosis are highly contagious and can be easily transmitted between domestic and wild elk. Tuberculosis can also be transmitted to humans and is a serious health risk.

Risk of disease transmission can be reduced by maintaining the integrity of the enclosure fence, by maintaining a healthy domestic elk population, and by following the above listed mitigation recommendations. If the game farm is managed properly, the risk of disease transmission from domestic elk to wild ungulates would likely be minimal.

- **Potential for escape of game farm animals or ingress of wildlife (consider site-specific factors that could reduce the effectiveness of perimeter fences built to standards outlined in Rule 12.6.1503A, including steepness of terrain, winter snow depths/drifts, susceptibility of fences to flood damage, etc.).**

Fence integrity: The proposed fence would consist of 8-foot high, 6-inch mesh, high tensile big game fencing; supported by 12-foot long, 3-inch diameter pipe driven 3.5 feet into the soil. Fence posts would be spaced at 20-foot intervals. The proposed enclosure site is located on slightly inclined and hilly terrain with a moderate site potential for construction of the proposed enclosures. The majority of the expansion pasture includes mostly open and unforested habitat, and there is only minimal possibility of windthrown trees breaking the integrity of the enclosure fence. The likelihood of a serious fence breach by windthrown trees would be reduced by clearing a 20-foot path on either side of exterior big game fences. Cleared paths along exterior fences, however, may encourage wild deer and elk and domestic elk to walk along the fence line and increase the chances of nose-to-nose contact.

While significant amounts of snowfall can occur in the vicinity of the expansion area this pasture is not intended to be utilized during the winter period. Therefore accumulation of snow along the fence line sufficient to allow ingress or egress is not an issue.

- **Proportion (%) of the total habitat area currently used by wildlife that would be enclosed or otherwise impacted.**

Cumulatively, the enclosed habitats (existing game farm and proposed expansion) would be less than 5% of the available habitats in this area. This loss of native habitat would be insignificant in relation to availability of similar habitat in the surrounding area. The proposed enclosure would not significantly displace other wildlife species.

PART IV. EA CONCLUSION

1. Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO

No. The appropriate level of analysis for the Proposed Action is a mitigated EA because:

- all impacts of the Proposed Action have been accurately identified in the EA;
- all identified significant impacts would be mitigated to minor or none.

2. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the Proposed Action, is the level of public involvement appropriate under the circumstances?

Upon completion of the Draft EA, a notice is sent to adjoining landowners, the local newspapers (Helena Independent Record and Townsend Star), and other potentially affected interests, explaining the project and asking for input during a 21-day comment period. The Draft EA is also available to the public through the State Bulletin Board System during the public comment period, and from the Montana Fish, Wildlife and Parks at Region 3, 1400 South 19th, Bozeman, MT 59718 (406-994-4042), or the Helena Area Resource Office, 930 Custer Ave W, Helena, MT 59620 (406-444-4720).

3. Duration of comment period if any: June 6 thru 5:00 pm June 30, 1999.

Send comments to:

PBER Expansion
Montana Fish, Wildlife & Parks
P.O. Box 998
Townsend, Montana 59644
(406) 266-3367

4. Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:

Fish, Wildlife and Parks

Tom Carlsen, Region 3 Wildlife Biologist, Townsend

REFERENCES

FWP 1997. Aerial survey results for mule deer and elk in Hunting District 391, FWP files, Townsend, MT. July 1997.

____ 1995. Game Farm Desk Reference; Fish, Wildlife and Parks Game Farm Guidance Document. December 6, 1995.

